CLAIMS

1. An image processor comprising:

means for acquiring designation data from the user;

means for coupling image data corresponding to the designation data to each other to group them;

means for detecting a feature of the image data corresponding to the designation data; and

means for uncoupling the image data, coupled by the coupling means corresponding to the designation data, according to each feature of image data corresponding to the designation data in the same group.

2. The apparatus according to claim 1, wherein:

there is further provided means for dividing the image data into small areas;

the coupling means couples the small areas of the image data to each other to group them according to the designation data;

the feature detecting means detects a feature of each of the small areas; and

the uncoupling means uncouples the small areas having been coupled by the coupling means from each other according to the features of the small areas in the same group.

3. The apparatus according to claim 2, wherein:

there is further provided means for storing, for each of the small areas, information on positions of designation data corresponding to the small areas in the image data, designation-time information and identifier information indicative of whether each of the small areas belongs to any object image;

the coupling means couples small areas corresponding to earlier designation data and small areas corresponding to current designation data to each other by storing the same identifier information as identifier information corresponding to the earlier designation data stored in a storage means so as to correspond to the small areas corresponding to the current designation data; and

the uncoupling means uncouples, when one of a plurality of small

areas to which the same identifier information is appended by the coupling means is different in feature from other small areas, the one and other small areas from each other by changing the identifier information of the one small area to different one of the other small areas.

4.   The apparatus according to claim 3, wherein the feature detecting means

detects, as the feature, the movement of an object in image data in interesting small areas in interesting image data of moving image data consisting of a plurality of image data.

5.   The apparatus according to claim 4, wherein:

there is further provided means for computing a time interval between designation

data earlier than the designation-time information on the designation data and current designation data; and

the coupling means couples the small areas to each other when the time interval computed by the time interval computing means is less than a predetermined threshold while storing, when the time interval exceeds the predetermined threshold into the data storing means, different identifier information from identifier information corresponding to the earlier designation data information correspondingly to the current designation data not to couple the small areas corresponding to the earlier designation data and those corresponding to the current designation to each other.

6.   The apparatus according to claim 1, wherein:

the feature detecting means judges whether objects in interesting small area image data corresponding to the interesting image data are stationary or moving, based on a difference between the interesting small area image data and peripheral image data adjacent in the direction of time to the interesting small area image data; and

the coupling means works to:

store, when the small area image data corresponding to the earlier designation data are stationary objects, the interesting small area image data are judged to be stationary and the time interval computed by the time interval computing means is less than the predetermined threshold, the same identifier information as the identifier

information corresponding to the earlier designation data stored in the storing means into the storing means correspondingly to the small areas corresponding to the current designation data to couple the small areas corresponding to the earlier designation data and those corresponding to the current designation data to each other;

store, when the small area image data corresponding to the earlier designation data are moving objects, the interesting small area image data are judged to be moving and the time interval computed by the time interval computing means is less than the predetermined threshold, the same identifier information as the identifier information corresponding to the earlier designation data stored in the storing means into the storing means correspondingly to the small areas corresponding to the current designation data to couple the small areas corresponding to the earlier designation data and those corresponding to the current designation data to each other; and

store, when the time interval exceeds the predetermined threshold or when the result of the stationary/moving judgment of the small area image data corresponding to the earlier designation data is different from that of the small area image data corresponding to the current designation data, identification information different from the identifier information corresponding to the earlier designation data into the data storing means correspondingly to the current designation data not to couple the small areas corresponding to the earlier designation data and those corresponding to the current

designation data to each other.

7. A communication system comprising:

a transmitter to send image data; and

a receiver to receive the image data sent from the transmitter;

the receiver comprising:

a first means for receiving the image data sent from the transmitter;

means for outputting the image data received by the first receiving means;

means for outputting the image data outputted from the outputting means;

means for designating a time-spatial position of the received image data outputted from the outputting means; and

a first means for sending designation data indicative of the time-spatial position of the image data, designated by the designating means; and

the transmitter comprising:

an input means to which image data are supplied continuously;

a second means for receiving the designation data sent from the first sending means;

means for coupling the image data corresponding to the designation data received by the second receiving means to each other to group them;

means for detecting features of the image data corresponding to the

designation data; and

means for uncoupling the image data, coupled by the coupling means and corresponding to the designation data, according to each feature of the image data corresponding to the designation data in the same group.

8.   The system according to claim 7, wherein:

there is further provided means for dividing the image data into small areas;

the coupling means couples the small areas of the image data to each other to group them according to the designation data;

the feature detecting means detects a feature of each of the small areas; and

the uncoupling means uncouples the small areas, coupled together by the coupling means, according to the features of the small areas in the same group.

9.   The system according to claim 8, wherein:

there is further provided means for storing, for each of the small areas, information on positions of designation data corresponding to the small areas in the image data, designation-time information and identifier information indicative of whether each of the small areas belongs to any object image;

the coupling means couples small areas corresponding to earlier designation data and small areas corresponding to current designation data to each other by storing the same identifier information as identifier information corresponding to the earlier

designation data stored in a storage means so as to correspond to the small areas corresponding to the current designation data; and

the uncoupling means uncouples, when one of a plurality of small

areas to which the same identifier information is appended by the coupling means is different in feature from other small areas, the one and other small areas from each other by changing the identifier information of the one small area to different one of the other small areas.

10.   The system according to claim 9, wherein the feature detecting means

detects, as the feature, the movement of an object in image data in interesting small areas in interesting image data of moving image data consisting of a plurality of image data.

11.   The system according to claim 10, wherein:

there is further provided means for computing a time interval between designation data earlier than the designation-time information on the designation data and current designation data; and

the coupling means couples the small areas to each other when the time interval computed by the time interval computing means is less than a predetermined threshold while storing, when the time interval exceeds the predetermined threshold into the data storing means, different identifier information from identifier information corresponding to the earlier designation data information correspondingly to the current designation data

not to couple the small areas corresponding to the earlier designation data and those corresponding to the current designation to each other.

12. The system according to claim 11, wherein:

the feature detecting means judges whether objects in interesting small area image data corresponding to the interesting image data are stationary or moving, based on a difference between the interesting small area image data and peripheral image data adjacent in the direction of time to the interesting small area image data; and

the coupling means works to:

store, when the small area image data corresponding to the earlier designation data are stationary objects, the interesting small area image data are judged to be stationary and the time interval computed by the time interval computing means is less than the predetermined threshold, the same identifier information as the identifier information corresponding to the earlier designation data stored in the storing means into the storing means correspondingly to the small areas corresponding to the current designation data to couple the small areas corresponding to the earlier designation data and those corresponding to the current designation data to each other;

store, when the small area image data corresponding to the earlier designation data are moving objects, the interesting small area image data are judged to be moving and the time interval computed by the time interval computing means is less

than the predetermined threshold, the same identifier information as the identifier information corresponding to the earlier designation data stored in the storing means into the storing means correspondingly to the small areas corresponding to the current designation data to couple the small areas corresponding to the earlier designation data and those corresponding to the current designation data to each other; and

store, when the time interval exceeds the predetermined threshold or when the result of the stationary/moving judgment of the small area image data corresponding to the earlier designation data is different from that of the small area image data corresponding to the current designation data, identification information different from the identifier information corresponding to the earlier designation data into the data storing means correspondingly to the current designation data not to couple the small areas corresponding to the earlier designation data and those corresponding to the current designation data to each other.

13.   A communication apparatus for sending image data, comprising:

an input means to which image data are supplied continuously;

means for receiving time-spatial position designation data for the image data;

means for coupling image data corresponding to the received designation data to each other to group them;

means for detecting a feature of each of the image data corresponding to the

designation data; and

means for uncoupling the image data, coupled by the coupling means and corresponding to the designation data, according to each of the features of the designation data in the same group.

14. The apparatus according to claim 13, wherein:

there is further provided means for dividing the image data into small areas;

the coupling means couples the small areas of the image data to each other to group them according to the designation data;

the feature detecting means detects a feature of each of the small areas; and

the uncoupling means uncouples the small areas, having been coupled by the coupling means, according to the features of the small areas in the same group.

15. The apparatus according to claim 14, wherein:

there is further provided means for storing, for each of the small areas, information on positions of designation data corresponding to the small areas in the image data, designation-time information and identifier information indicative of whether each of the small areas belongs to any object image;

the coupling means couples small areas corresponding to earlier designation data and small areas corresponding to current designation data to each other by storing the same identifier information as identifier information corresponding to the earlier

designation data stored in a storage means so as to correspond to the small areas corresponding to the current designation data; and

the uncoupling means uncouples, when one of a plurality of small areas to which the same identifier information is appended by the coupling means is different in feature from other small areas, the one and other small areas from each other by changing the identifier information of the one small area to different one of the other small areas.

16. The apparatus according to claim 15, wherein the feature detecting means detects, as the feature, the movement of an object in image data in interesting small areas in interesting image data of moving image data consisting of a plurality of image data.

17. The apparatus according to claim 16, wherein:

there is further provided means for computing a time interval between designation data earlier than the designation-time information on the designation data and current designation data; and

the coupling means couples the small areas to each other when the time interval computed by the time interval computing means is less than a predetermined threshold while storing, when the time interval exceeds the predetermined threshold into the data storing means, different identifier information from identifier information corresponding to the earlier designation data information correspondingly to the current designation data

not to couple the small areas corresponding to the earlier designation data and those corresponding to the current designation to each other.

18.   The apparatus according to claim 17, wherein:

the feature detecting means judges whether objects in interesting small area image data corresponding to the interesting image data are stationary or moving, based on a difference between the interesting small area image data and peripheral image data adjacent in the direction of time to the interesting small area image data; and

the coupling means works to:

store, when the small area image data corresponding to the earlier designation data are stationary objects, the interesting small area image data are judged to be stationary and the time interval computed by the time interval computing means is less than the predetermined threshold, the same identifier information as the identifier information corresponding to the earlier designation data stored in the storing means into the storing means correspondingly to the small areas corresponding to the current designation data to couple the small areas corresponding to the earlier designation data and those corresponding to the current designation data to each other;

store, when the small area image data corresponding to the earlier designation data are moving objects, the interesting small area image data are judged to be moving and the time interval computed by the time interval computing means is less

than the predetermined threshold, the same identifier information as the identifier information corresponding to the earlier designation data stored in the storing means into the storing means correspondingly to the small areas corresponding to the current designation data to couple the small areas corresponding to the earlier designation data and those corresponding to the current designation data to each other; and

store, when the time interval exceeds the predetermined threshold or when the result of the stationary/moving judgment of the small area image data corresponding to the earlier designation data is different from that of the small area image data corresponding to the current designation data, identification information different from the identifier information corresponding to the earlier designation data into the data storing means correspondingly to the current designation data not to couple the small areas corresponding to the earlier designation data and those corresponding to the current designation data to each other.

19.   An image processing method comprising the steps of:

acquiring designation data from the user;

coupling image data corresponding to the designation data to each other to group them;

detecting a feature of the image data corresponding to the designation data; and

uncoupling the image data, coupled by the coupling means and corresponding to

the designation data, according to each feature of image data corresponding to the designation data in the same group.

20. A communication method for communications of image data between a transmitter and receiver, wherein:

the receiver functions to:

receive the image data sent from the transmitter;

output the image data received by the first receiving means;

output the image data outputted from the outputting means;

designate a time-spatial position of the received image data outputted from the outputting means; and

send designation data indicative of the time-spatial position of the image data, designated by the designating means; and

the transmitter functions to:

receive image data continuously;

receive the designation data sent from the first sending means;

couple the image data corresponding to the designation data received by the second receiving means to each other to group them;

detect features of the image data corresponding to the designation data; and

uncouple the image data, coupled by the coupling means and corresponding

to the designation data, according to each feature of the image data corresponding to the designation data in the same group.

21.   A communication method for sending image data, comprising the steps of:

inputting image data continuously;

receiving time-spatial position designation data for the image data;

coupling image data corresponding to the received designation data to each other to group them;

detecting a feature of each of the image data corresponding to the designation data; and

uncoupling the image data, coupled by the coupling means and corresponding to the designation data, according to each of the features of the designation data in the same group.

22.   A recording medium having provided there a program which can be read by an information processing means, the program comprising the steps of:

acquiring designation data from the user;

coupling image data corresponding to the designation data to each other to group them;

detecting a feature of the image data corresponding to the designation data; and

uncoupling the image data, coupled by the coupling means and corresponding to

the designation data, according to each feature of image data corresponding to the designation data in the same group.

23.   A recording medium having recorded therein a program which can be read by an information processing means, the program controlling:

the receiver to:

receive the image data sent from the transmitter;

output the image data received by the first receiving means;

designate a time-spatial position of the received image data outputted from the outputting means; and

send designation data indicative of the time-spatial position of the image data, designated by the designating means; and

the transmitter to:

receive image data continuously;

receive the designation data sent from the first sending means;

couple the image data corresponding to the designation data received by the second receiving means to each other to group them;

detect features of the image data corresponding to the designation data; and

uncouple the image data, coupled by the coupling means and corresponding to the designation data, according to each feature of the image data corresponding to the

designation data in the same group.

24.   A recording medium having stored therein a program which can be read by an information processing means, the program comprising the steps of:

inputting image data continuously;

receiving time-spatial position designation data for the image data;

coupling image data corresponding to the received designation data to each other to group them;

detecting a feature of each of the image data corresponding to the designation data; and

uncoupling the image data, coupled by the coupling means and corresponding to the designation data, according to each of the features of the designation data in the same group.